



State of Utah

Department of
Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

DAQ-094-07

MEMORANDUM

TO: Air Quality Board

THROUGH: Cheryl Heying, Executive Secretary

FROM: Bill Reiss, Environmental Engineer
Mat Carlile, Environmental Planning Consultant

DATE: January 9, 2008

SUBJECT: Update of Utah Area Designation Recommendations for the 2006 PM_{2.5} NAAQS

The November Board meeting included an update on the recommendation Utah was preparing to make concerning Area Designations for the revised PM_{2.5} National Ambient Air Quality Standard. This recommendation was due to the EPA on December 18, 2007. The Board requested an update once the recommendation was complete, and this represents the earliest opportunity to do so.

The analysis underlying the recommendation was revised a bit to consider commuter data in some of the outlying regions of the Wasatch Front, and now includes an emissions inventory. These revisions were in response to comments made by the EPA.

The recommendation itself is essentially the same as what was presented in November. It proposes three areas that should be designated as nonattainment for PM_{2.5}:

- A Northern Wasatch Front nonattainment area
- A Utah Valley nonattainment area
- A Cache Valley nonattainment area

With the exception of Tribal Lands, all other areas of the State should be designated as "Attainment/Unclassifiable" with respect to PM_{2.5}.

This recommendation was sent to EPA on December 18, 2007, and it is now left to the agency to consider the State's position and make its final recommendation, no later than December 18 of 2008.

Anyone wishing to learn more about the basis for Utah's recommendation can find the report: "Area Designation Recommendations for the 2006 PM_{2.5} National Ambient Air Quality Standards" on the Air Quality website at: http://www.airquality.utah.gov/Public-Interest/about_pollutants/PM25_Area_Designations_2006.pdf.



Introduction

On September 21, 2006, - EPA
promulgated revisions to the National
Ambient Air Quality Standards (NAAQS)
for PM_{2.5}

- Lowered the 24-hr standard from 65
micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 35
 $\mu\text{g}/\text{m}^3$
- Retained the annual standard at 15 $\mu\text{g}/\text{m}^3$



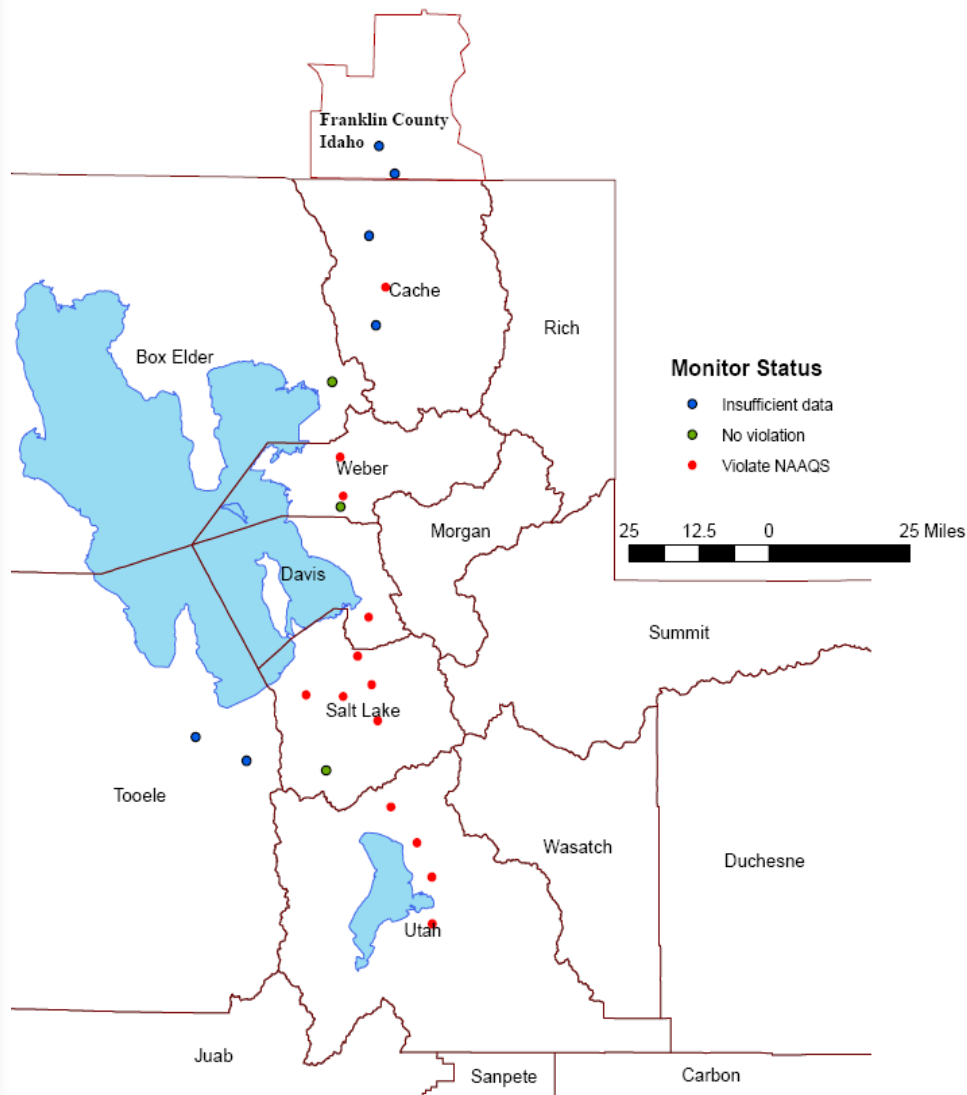
Introduction (Cont.)

The Clean Air Act establishes that States will recommend initial area designations to EPA

Areas may be designated as:

- **Attainment** - for any area that meets the standard for the pollutant
- **Nonattainment** - for any area that does not meet the standard or that contributes to a violation in a nearby area
- **Unclassifiable** – for any area that cannot be classified based on available information

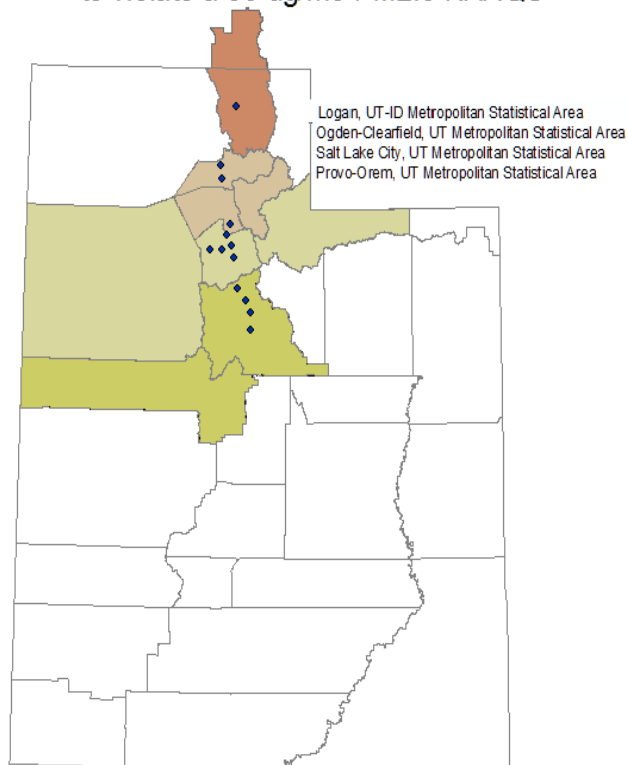
Utah's Air Monitoring Network



Here is a map of Utah's PM2.5 air monitoring network

- Dots are colored to indicate compliance or noncompliance with the NAAQS:
 - **red** means not attaining
 - **green** means attaining
 - **blue** means not enough data yet
- All instances of noncompliance are related to the 24-hr design values

Metropolitan Statistical Areas likely
to violate a 35 ug/m³ PM_{2.5} NAAQS

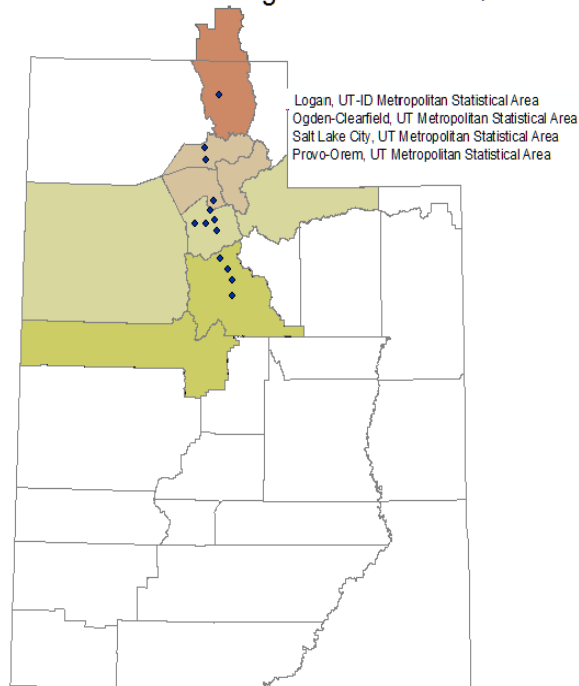


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EPA issued some guidance concerning this process, which said:

- For urban nonattainment areas violating the annual standard, the area boundaries should be based on Metropolitan Area (MA) boundaries.
- For rural nonattainment areas, EPA would presume that the entire county in which a violation was determined should be designated nonattainment.

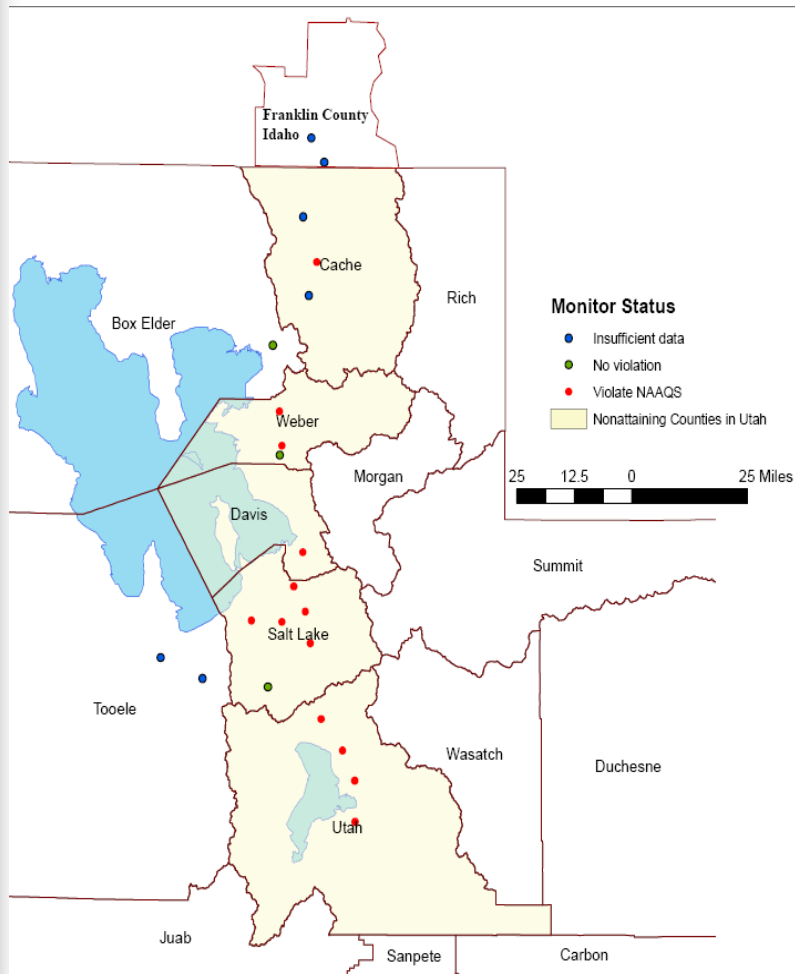
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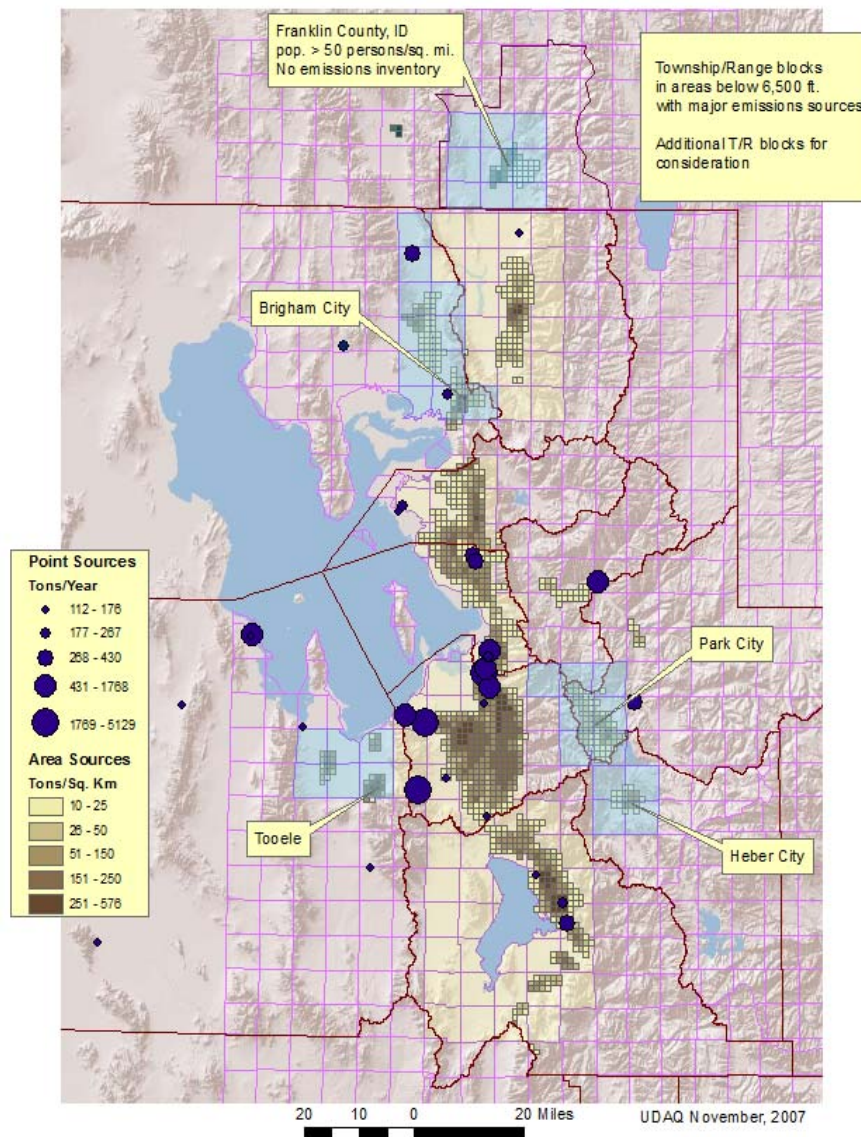
Utah Division of Air Quality September, 2006

EPA will consider requests for nonattainment area definitions that differ from the presumed definitions on a case-by-case basis, considering the following nine factors:

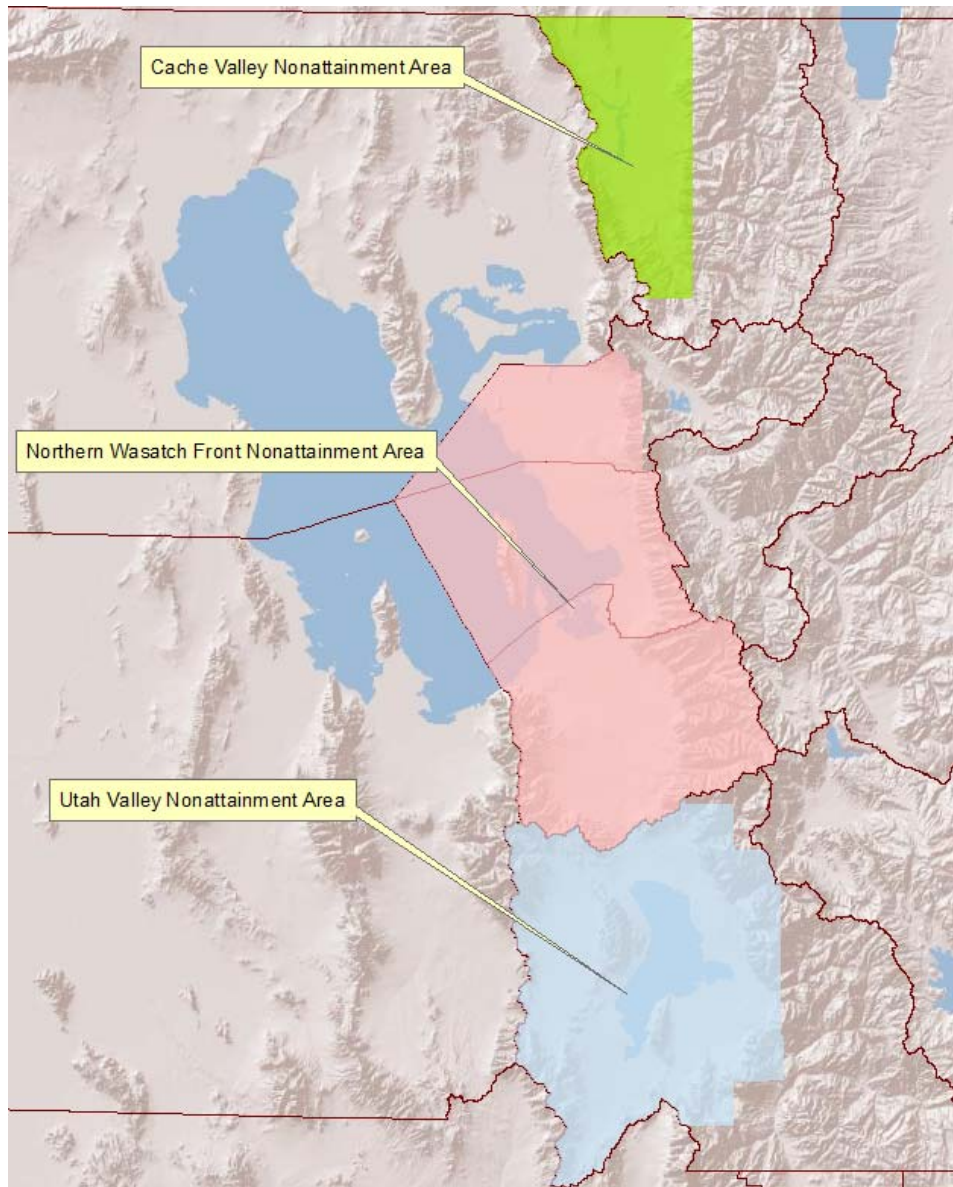
1. **Emissions**
2. **Air Quality**
3. **Population density**
4. **Traffic**
5. **Expected growth**
6. **Meteorology**
7. **Geography/Topography**
8. **Jurisdictional boundaries**
9. **Level of control of emission sources**



- Utah has evaluated each of these nine factors to determine how the areas should be designated.
- Rather than presuming MAs as area boundaries Utah considered:
 - County boundaries
 - Townships
- This provides a higher degree of resolution.

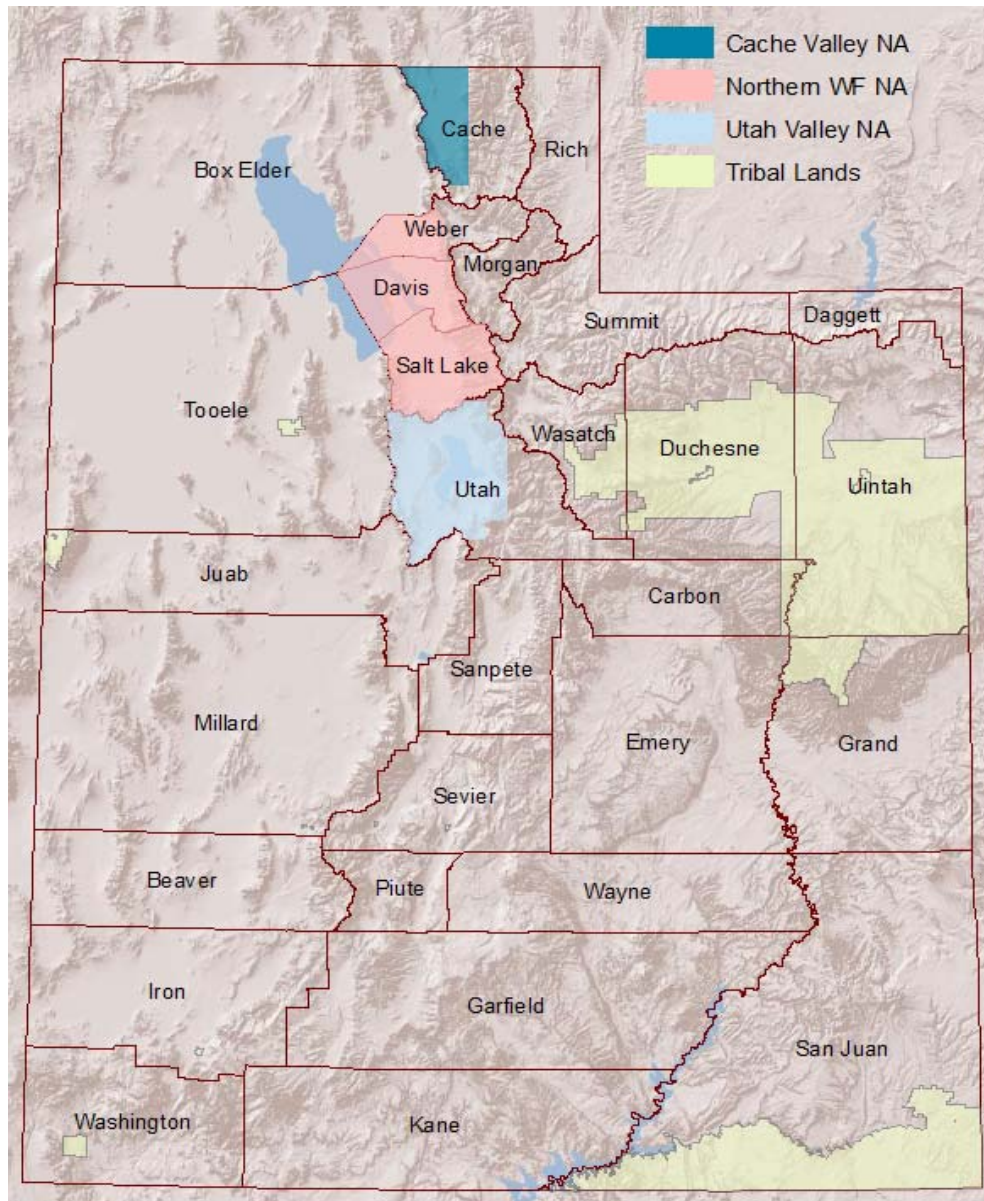


- This figure shows how many of the nine factors were considered on a geographic basis. Of particular note are:
 - population
 - emissions
 - topography
 - AQ data
- The yellowish color townships surround monitors that measured violations.
- The blue townships represent areas of interest.
- Other areas of interest that are not show on this included:
 - St. George
 - Vernal



Utah will recommend that the following three areas as nonattainment:

- Cache Valley
- Northern Wasatch Front
- Utah Valley



All other areas of the State will be recommended as

- attainment or
- unclassifiable

Utah does not make recommendations concerning Tribal Lands



Schedule for administrative process:

- State makes recommendation to EPA one yr from new standard (12/18/07)
- EPA finalizes designations – ASAP, but not later than two yrs from new standard (12/18/08)
 - **Effective date** of designations is some time later (about 4 months)
 - If EPA disagrees with State recommendation, it must provide 120 days for State rebuttal
- SIP due (3 yrs from effective date of final designations)
- Attainment date (2 yrs after SIP)
 - Possible 5-yr extension of attainment date
- Transportation conformity applies (12 months following effective date of designations)
 - As early as spring 2009
 - As late as spring 2010